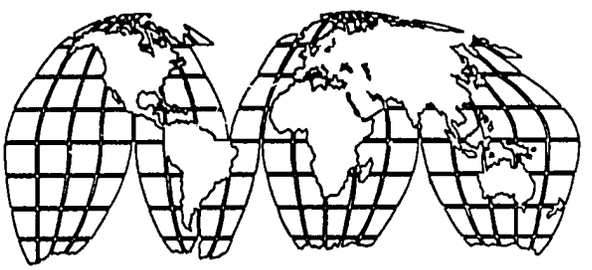
PN 93377

USAID Working Paper No. 200

Center for Development Information and Evaluation



Assessment of the Non-Traditional Export Support Project and the Export and Industry Support Project in Central America

April 1994

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Assessment of the Non-Traditional Agricultural Export Support Project and the Export and Industry Support Project in Central America

by

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October 1994

Prepared for the Regional Office for Central America and Panama and for the Programs and Operations Division, Office of Evaluation, Center for Development Information and Evaluation, under contract no. PDC-0085-C-1140-00

Center for Development Information and Evaluation
U.S. Agency for International Development
Washington, D.C. 20523

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LIST OF ACRONYMS

ACP	Africa, Caribbean and Pacific (trade preference region)
APENN	Nicaraguan Association of Producers and Exporters of Non-Traditional Products
APHIS	Animal and Plant Health Inspection Service
ASPENT	Association of Producers and Exporters of Non-Traditional Products (in El Salvador)
BABCO	Belize Agri-Business Company
BCCI	Belize Chamber of Commerce and Industry
BEIPU	Belize Export and Import Promotion Unit (part of BCCI)
CAAP	Private Industrial and Agricultural Council of Costa Rica
CADEXCO	Costa Rican Agricultural Export Council
Cámara Agrícola	Agricultural Chamber of Commerce
CINDE	Costa Rican Coalition for Development Initiatives
DIVAGRO	Costa Rican Export Federation
EPA	(U.S.) Environmental Protection Agency
EXITOS	Export Industry Technology Support Project
FEPROEXAH	Honduran Federation for the Promotion of Agricultural Exports
FHIA	Honduran Foundation for Agricultural Research
FOPEX	Honduran Federation of Associations of Agricultural and Agroindustrial Products and Exporters
FUSADES	Salvadoran Foundation for Social and Economic Development
GDP	gross domestic product
GEXPRONT	Guild of Exporters of Non-Traditional Products (in Guatemala)
GREXPAN	Guild of Exporters of Non-Traditional Crops (in Guatemala)
GSP	Generalized System of Preferences
PIPA/A	Pesticide Component of RENARM project
PMA	Producers' Marketing Association
PROEXAG	Non-Traditional Agricultural Export Support Project
RENARM	Regional Environmental and Natural Resources Management (Project)
ROCAP	Regional Office for Central America and Panama
SAR	semi-annual report
UFFVA	United Fresh Fruit and Vegetable Association
USAID	U.S. Agency for International Development
USDA	U.S. Department of Agriculture

SECTION ONE

REGIONAL SETTING AND PROJECT DESCRIPTIONS

REGIONAL SETTING

The economic evolution of Central America has demonstrated how a group of countries has been able to pass through three stages of growth in a relatively uniform way. From being mired in traditional agricultural societies in the 1940s and 1950s, these countries became agroindustrial, import-substitution, low-productivity agrarian societies in the 1960s and 1970s, to reach today a transitional stage of economic growth with an export orientation and a dynamic agribusiness sector (Pomareda et al., 1993).

In the earliest stage, the Central American countries were largely producing basic food crops; a few crops were produced for export, often by enclave foreign firms. Coffee, cocoa, bananas, sugar, and beef all fall into this monoproduct export model, whereas the rest of the countries' agricultural production remained in subsistence crops.

During the emergence of the second stage of growth, these countries followed the Latin American path and developed agroindustries under a strategy of import substitution, structuring their agricultural policies to create the appropriate incentives for developing domestic industries in tobacco, beverages, milk products, canned and bottled foods, vegetable oils and pastas, flours, confection goods, basic grains, agricultural inputs, and paper, textile, and leather processing.

In the 1980s, international markets turned against Central America's traditional exports initiated in the first stage of growth, and the import-substitution model could not be sustained as the worldwide recession advanced. In desperation, there was significant movement to generate new sources of foreign exchange during the early part of the decade. This was done by recognizing that the comparative advantage of these countries lay in exporting fresh fruits and vegetables to the U.S. off-season market and in using these new revenues to replace the income lost from declining market shares and decreases in demand for traditional commodities in the international markets.

The demand for the traditional exports of Central America fell because of bumper crops around the world, significant increases in production in competing countries, and a decline in consumption of these commodities in the United States and Europe. Because the terms of trade generally turn against traditional and basic agricultural products as economies grow, it was imperative for the countries of Central America to turn to nontraditional crops and products to generate new niche markets with higher demand elasticities. Because these countries were relatively poor, with large unskilled rural populations, it was appropriate for them to continue to develop their agricultural sectors. Moreover, as nontraditional exports grew, packing and processing jobs began to multiply.

Perhaps the most significant movement during the 1980s in the region was the shift from a policy of import substitution to one of export orientation. In concert with the efforts of the U.S. Agency for International Development (USAID) to bring about structural adjustment and the emergence of free and open markets, the Central American countries have openly supported and promoted increased exports and have been proactive in setting up export promotion institutions with U.S. offices and representatives.

The Macroeconomic Environment

Stages of Development

The Central American countries covered by the projects under review in this report are Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Belize, and Panama. These countries went through the stages discussed above. During the 1960s, most were engaged in production of subsistence crops, such as maize and beans, along with traditional export crops. During the 1960s and 1970s, these economies embraced a statist approach and a policy of import substitution. High import tariffs on consumer goods were levied in almost all of these countries. By the 1980s and 1990s, most of the economies began to move out of subsistence agriculture but still experienced low productivity; in these decades, a definite outward shift emerged. Regional exports increased, and exports to the United States and other countries expanded rapidly. Guatemala and Costa Rica were the first to embrace this movement, followed by Honduras, Panama, and El Salvador. Although Nicaragua had the opportunity to join this group, internal conflicts prevented the shift. Productivity gains did not materialize.

Industrialization took off in Guatemala and Costa Rica in the 1990s. To a certain extent, the other three — El Salvador, Honduras, and Panama — tended in this direction; however, they remained in the earlier stages of development.

It should be noted that, although the economies are characterized above according to the performance of their overall economic performance, some commodities operated as if the countries in question were in more advanced stages of growth. This was the case for coffee, sugar, and some other traditional export crops that were efficiently managed by their private firms and export managers.

Inward versus Outward Orientation

During the 1960s and 1970s, the Central American countries pursued a policy of import substitution. A Central American common market was designed and introduced, but the many internal conflicts in the region undermined its effectiveness and it was short-lived. Outward orientation as a policy, and the readjustment of export promotion reforms, occurred in the mid-1980s, as Guatemala and Costa Rica launched significant efforts to promote nontraditional exports, both agricultural and nonagricultural. Initial success was achieved in horticulture, and more recent success has occurred in production and trade that involve *maquilas*. To coincide with these developments, regulatory policies and export regime reforms were introduced that significantly shifted the economy from import substitution to export promotion. In the process, exchange rates were adjusted (although overvalued rates still prevail), trade regulations were modernized, one-stop shops were introduced, transportation policies were improved, and off-shore financing was considered and used on an opportunistic basis. Throughout the last decade, significant strides were made to liberalize trade regimes and to promote nontraditional exports.

The Agricultural Sector

In 1986, primary agriculture accounted for 20 percent of gross domestic product (GDP) in each country except Panama (where primary agriculture was only 9 percent of GDP); primary agriculture accounted for up to 30 percent of GDP when food-related agroindustries were included. The largest factor that affected Central America's traditional agricultural exports was the severe drop in international

prices. Although prices several decades ago were relatively high, the drastic fall in prices since 1980 has been particularly devastating to these economies (see Table 1).

TABLE 1

PRICE CHANGES FOR TRADITIONAL CROPS
1980-1990
(Constant 1985 dollars)

	Coffee	Cocoa	Sugar	Beef	Bananas	Cotton
1980 Price ($/kg)	3.30	2.60	0.61	2.65	0.36	1.96
1990 (Price ($/kg)	1.28	0.69	0.27	1.80	0.32	1.26
1990 price as percentage of 1980 price	39%	27%	44%	68%	89%	64%

Under these economic realities, most Central American economies sought relief by increasing nontraditional exports. They also encouraged increases in banana exports, because prices for bananas did not fall dramatically and demand for bananas remained strong. In 1987, bananas accounted for up to two-thirds of agricultural exports from the region.

Nontraditional agricultural exports as a percentage of total agricultural exports in Central America increased from less than 1 percent in 1975 to almost 50 percent in 1991, reaching close to $1 billion in exports to the United States alone. Although the majority of Central America's nontraditional agricultural exports go to the United States, their agricultural import bill from the United States runs 20 percent higher. This shows that supporting the increase in nontraditional exports to improve Central America's overall agricultural performance can lead to a positive impact with respect to the U.S. trade balance. When nonagricultural items are added to the list of Central American imports from the United States, the increased income earned from nontraditional exports can lead to significantly more import value from the United States than the value of the nontraditionals.

PROJECT DESCRIPTIONS

The Non-Traditional Agricultural Export Support Project (PROEXAG) grew out of the need for technical assistance, expressed by the Regional Office for Central America and Panama (ROCAP) missions, as the focus of the economies of the region shifted from the production of locally consumed basic food crops to the production, marketing, and exporting of nontraditional agricultural crops aimed primarily at the U.S. market. It was recognized at the beginning that the production and export of these crops did not depend on large dollar investments, yet they were highly labor intensive. However, to take full advantage of the comparative advantage the Central American countries enjoyed (with respect to climate, soils, length of growing season, and inexpensive and skilled labor), the producers and exporters of the region needed to employ the most efficient management practices, thoroughly know the latest production and handling technologies, and be equipped with sophisticated and up-to-date market information. Moreover, there was a need to better understand the constraints and risks involved in export marketing of these products.

The initial analysis for the project deduced that the export federations in each country would need to leverage new resources to support activities such as arranging buyer contracts with multiple producers; coordinating sales agreements; providing training in production, postharvest handling, transportation, and marketing; and developing the entrepreneurial skills necessary to expand exports. The background analysis conducted prior to developing the project determined that the marketing of nontraditional horticulture products would demand much more sophisticated information on export requirements than the information available at that time in the region. The background review found that there was a preponderance of substandard yields for both fruits and vegetables, existing transportation and storage facilities were substandard, postharvest handling technology was improper, and the producers had limited contact with the export market.

In the review of the development of horticultural exports up to the beginning of the project's operations, it was observed that the management of the exporting process had typically been carried out by individuals or firms known as "channel captains" (individuals or firms that can serve as catalysts or as industry leaders). These individuals or firms had (and have) the skills and experience to identify market opportunities and design and implement appropriate export strategies. The channel captain understood every facet of the business, including the purchase of agricultural inputs; the production technology; product selection and packing or packaging; and selection of the most appropriate means of transportation and of handling the marketing, distribution, and sales of products in the final destination markets. This individual or firm managed the activities of agronomists and producers, packers and shippers, and brokers and wholesalers to achieve consistent profits from export sales. Usually, the channel captain was a U.S. citizen or someone with strong ties in and experience with the U.S. market. It was noted that there were too few individuals or firms in the region capable of functioning as channel captains, and, for this reason, the project was redesigned. A follow-on project was developed in 1991, when the five-year PROEXAG project came to completion. This second project was called the Export Industry Technology Support (EXITOS) Project.

The PROEXAG project was designed to provide services to and complement the efforts of the USAID bilateral agricultural production and export marketing projects in the ROCAP region. The PROEXAG project was to establish a strong base of technical expertise and market intelligence that was to be incorporated into the existing export promotion federations in the region, to be used by federation members, producer associations, agricultural cooperatives, individual farmers, and potential export entrepreneurs. In addition, the project was to strengthen and enhance the technical and training capabilities of the export federations, and provide assistance in the design and implementation of training seminars and workshops in nontraditional agricultural export management.

The second project, EXITOS, building on the successes of PROEXAG, continued the push to increase the sales of Central American nontraditional crop exports. However, the beneficiaries of EXITOS's services extend beyond the institutions identified in the PROEXAG project. The focus of the EXITOS project was on private corporations, cooperatives, and individual entrepreneurs in addition to the export federations. Specific activities were directed at institutional development of the original counterpart export promotion federations and commodity and trade groups, agricultural production, postharvest crop management and quality control, marketing, and information dissemination and technology transfer.

Project Intervention Strategies

Organizational and Institutional Strengthening

PROEXAG's initial efforts were to strengthen the activities of four export promotion federations involved with nontraditional agricultural products. The project designated that more than 25 percent of its efforts would be directed to the support of the Guild of Exporters of Non-Traditional Products, known as GEXPRONT or as the Gremial. GEXPRONT, located in Guatemala, was formed by private business representatives in 1982 as a part of the Chamber of Commerce; it represented the interests of exporters, private sector groups, and overseas exporters and importers. GEXPRONT engages in lobbying the government on behalf of the interests of its members and in providing technical assistance in production, storage, postharvest handling, processing, and marketing.

The second federation to receive support was the Honduran Federation for the Promotion of Agricultural Exports (FEPROEXAH), which represented 13 producer associations formed along commodity lines. The Federation required assistance in postharvest handling, transport, storage, and training, and in the organization of producer groups.

The third institution was the Private Industrial and Agricultural Council of Costa Rica (CAAP). CAAP was formed to provide more focused attention and effort on developing support mechanisms for the export of nontraditional agricultural products. The principal activities of CAAP are to act as a lobbying group for the reform of government policies regarding nontraditional exports, promote selected agricultural production and export projects, design a new export promotion strategy, and establish a development fund to support studies and research to support export activities. CAAP's 161 members represent 30,000 producers and agribusinesses.

The fourth organization was the Association of Producers and Exporters of Non-Traditional Products (ASPENT), in El Salvador, which represents three large producer organizations in melons, vegetables, and shrimp, each with a membership of 50 to 100 members. ASPENT's primary objective was to improve the export management and administrative skills of its member organizations. It benefited greatly from the Foundation for Social and Economic Development (FUSADES).

As PROEXAG's design developed, it was envisioned that Panama would form a similar association in the near future, stemming from the Producers Union of Chiriqui and the Agricultural Export Cooperative Union of Panama, located in Chitre. Also, during the course of project design, Belize formed the Belize Agri-Business Company (BABCO), with USAID assistance, to assist the agricultural sector in diversifying away from sugar into mixed farming of vegetables, oilseeds, and grains.

EXITOS, on the other hand, was designed to work more directly with the individual entrepreneurs and agribusinesses to expand exports and to develop linkages to the aforementioned institutions and other support and service institutions. The EXITOS project recognized the need to establish a service structure to all forms of local institutions, including those not members of these federations, such as producer associations, pre-cooperatives, and nonmember individual entrepreneurs.

To assist in the development of the EXITOS project's advisory role with the federations, the EXITOS project established a relationship with the U.S. Producers' Marketing Association (PMA) and the United Fresh Fruit and Vegetable Association (UFFVA). These two organizations assisted greatly in developing the Agritrade program, federation newsletters, and other services for members.

Comprehensive relationships were also developed between the federations and other host country institutions and the U.S. Environmental Protection Agency and the Food and Drug Administration. The purpose was to harmonize the residue and pesticide regulations in each country with U.S. standards, and with each other's regulations.

Enterprise Development

The beneficiaries of the PROEXAG and EXITOS projects were to be the individuals or firms that, as a result of the projects, could successfully carry out the responsibilities of a channel captain. In addition, the projects assisted individual producers and producer representatives who did not reach the level of channel captain but supplied products and services to them. Finally, the projects assisted private export agents, farmers, transport firms, receiving and forwarding groups, postharvest handling firms, and marketing personnel. These enterprises received assistance and support in training, information, technical assistance, and access to credit.

During the course of the PROEXAG project, a decision was made to limit technical assistance to a fixed set of agricultural commodities in the vegetables, fruits and flowers, and ornamental sectors. Nevertheless, in specific instances, many diverse product groups were assisted in a wide range of technical areas.

The most notable development during the life of the two projects was the shift of emphasis from the predominant attention being paid to the strengthening of the export federations to one that promoted the "deal" as the primary goal. A deal, in the context of the projects, was to establish a contact such that the export of a product was consummated. Sourcing contracts were counted just as much as joint ventures; in fact, the latter did not occur as frequently.

Intermediation for Market Development

The assistance offered to the export federations and the individual entrepreneurs centered on market information — identifying the markets for different products; bringing in production technologies for their production, handling, and processing; and providing computerized facilities for market price determination at harvest and sale. Each federation was provided with a computer software system and two microcomputers, along with continuing technical and maintenance services. Two key ways in which market identification was carried out were through trade missions and attendance at trade shows in the United States and Europe, and through the creation of a regional trade fair, AGRITRADE. Developing contacts between buyers and producers to consummate sourcing contracts and develop long-term trade relationships was the goal.

Privatization

Parastatal marketing boards and input supply institutions were not a concern in Central America.

Project Activities

Training

Regional training programs on topics such as production technologies, postharvest handling, transportation, marketing, and computer applications were designed to be offered through the federations.

Technical Assistance

Technical assistance played a major role in the PROEXAG project. The contract team provided a six-member team of specialized technicians. The Chief of Party was to have been an executive in a U.S. trade association or private firm, with considerable private sector management experience related to nontraditional agricultural products. The full time Production Specialist would work with the producer groups, grower associations, and individual farmer-entrepreneurs. A Post-Harvest Handling Specialist was provided to analyze, design, and teach all phases of postharvest handling, packaging, and transporting of fresh produce — especially refrigerated storage and transport containers — maintaining contact with U.S. and other firms that provided this service. The contract team also included a Marketing Specialist and a Computer Information Specialist. The Marketing Specialist was to identify market opportunities, assist in negotiating sales and transportation contracts, and maximize the use of market intelligence, product demand information, quality specifications, and price and cost data. The Computer Information Specialist was to introduce the use of information systems such as Pro-Net, Fresh-Net, CBIN, the U.S. Department of Agriculture (USDA) information system, and the Iberian-American information system. The PROEXAG project also had a Training Specialist.

The second project, EXITOS, refined the technical assistance offered. Not only were long-term advisors provided, but also available were short-term advisors, theme-specific advisors, and indigenous technical assistants. Five long-term advisors were provided in institutional development, agricultural production, postharvest management, quality control, marketing, information dissemination, and technology transfer (extension). Once again, deal making remained the cornerstone of the technical assistance effort. The technical assistance advisors were charged with the development of new crops and themes to sustain the growth of nontraditional exports during times when markets for some products become saturated and consumer demands shift.

The basic refinement made was the inclusion of recurrent short-term advisors. These advisors were provided principally for assistance in asparagus, berries, traditional cut flowers (roses and carnations), exotic flowers (calla lilies, anthuriums, and heliconias), mangoes, frozen foods, tropical fruits, nuts, and spices, and for assistance in European and Japanese markets, hot-water dips, crop-specific integrated pest management, virology, plant pathology, maritime transportation, and organic farming. The recurrent advisors were to be available periodically from the contractor's home office staff. In contrast, the theme-specific advisors were to be recognized experts in the field, with specific knowledge on technical aspects, contracted to solve a particular problem. Examples of problems would be a particular viral strain in melons, controlled atmospheres for strawberries, ways to package roses, and production practices for pithaya. Finally, local short-term advisors were to be used for financial issues and institutional problems dealing with the federations or producer groups.

Market Research and Information Systems

Under both PROEXAG and EXITOS, the Marketing Service of USDA provided daily marketing reports on designated nontraditional export crops. As the information was recorded over the progress of the projects, market demand analyses and interpretations were conducted. The information was provided to the contractor's office in Guatemala for the core of advisors and was distributed to the participating federations on a daily basis.

Technology Procurement

The procurement of technology in production, postharvest handling and processing, pesticide and chemical management, cold storage, shipping, and market news interpretation was handled by the technical advisors for the projects. In addition, funds were available for some in-country adaptive crop trials. Examples of research activities identified in the EXITOS project were the testing of fall-bearing raspberries, the introduction of new exotic flowers such as colored calla lilies, new pruning practices for blackberries, and shrinkwrap for melons. As the project progressed, great emphasis was placed on pesticide and chemical usages on the export fruits and vegetables, in order to comply with the increased demands made by the U.S. Environmental Protection Agency (EPA).

Access to Credit

Much of the technical assistance was used to assist the individual firms and producer organizations in identifying and gaining access to new credit sources. The regional projects PROEXAG and EXITOS did not offer credit. However, PROEXAG and EXITOS participants and beneficiaries were qualified to receive credit from bilateral agribusiness and crop-diversification projects.

Input Supply

Information on the correct use of toxic materials and the right doses of fertilizers on the nontraditional crops was an integral part of the projects' technical assistance. This was particularly acute because of the tendency to overapply the materials rather than shift to the appropriate, more effective product when desired effects were not obtained. This became especially important as the market demanded more and more organic products.

Change in Focus

The project interventions were originally designed as an institutional development strategy to assist the export promotion federations of Central America. However, as the projects developed, there was a shift to individual firm and industry assistance through deal making — that is, consummation of the sale of an export product. To bring about this change in focus, the projects increased activities with private firms, individuals, and producer associations, and spent more effort on developing new and advanced technologies for specific crops. Although the PROEXAG project's design identified the channel captain as the key to the export process, the initial philosophy was to support and establish strong export promotion federations. However, because the organizations did not all evolve efficiently and act as the stimulus for the sector, a switch to a more direct approach was necessary. As the organizations did this, their effectiveness in generating employment and additional exports increased dramatically, and the second project, EXITOS, built

on this success. The EXITOS project was designed to continue and to refine the intervention strategy in place at the end of the PROEXAG project.

Financial Outlays

The PROEXAG project had total financing of $8 million. The EXITOS project was budgeted at $8.5 million and had a $5 million buy-in provision. Table 2 breaks the financing into its components.

TABLE 2

FINANCIAL BUDGETS FOR PROEXAG AND EXITOS

PROEXAG	
Management, Chief of Party	$782,000
Long-term technical assistance	$2,552,000
Training	$ 793,000
Short-term technical assistance	$1,825,000
Liaison Office	$552,000
Misc.,Contract, Inflation	$1,496,000
	$8,000,000
EXITOS	
Principal contract	$6,935,000
Special studies	$275,000
AMS/Miami	$110,000
Project Manager	$675,000
Misc.	$505,000
	$8,500,000
Buy-in Provision	($5,000,000)

SECTION TWO

MANAGEMENT AND TECHNICAL ASSISTANCE

MANAGEMENT

Implementing Organization

The management contracts for the PROEXAG and EXITOS projects were fully competed to technical assistance teams, firms, and consortiums that demonstrated experience and capacity in the development of nontraditional agricultural exports, development of private sector entities, and work with export promotion institutions. Before the contractor was selected, each participating federation was to sign memorandums of understanding to define the participation and role of each federation and its counterpart contributions. The contractor was managed by USAID's ROCAP. The rationale for a regional project was based on the fact that each bilateral mission had support for the export promotion federations and had support projects for crop diversification and nontraditional export crop promotion. The additional technical assistance required for the federation members and individual entrepreneurs and exporters was expected to be provided most efficiently on a regional basis because of the shared nature of the demand for services. However, if it were to happen that all the potential beneficiaries responded equally, there would be problems concerning vested interests of the exporters and the threat of saturation of some markets.

Management Structure

The projects were managed out of ROCAP by the regional economics officer. Originally, there was significant direct control by the mission, even though there was a personal services contractor assigned to day-to-day management supervision. However, shortly after the project was initiated, there were changes in the style of management, and the personal services contractor, the project liaison officer, and the contractor's Chief of Party were given much more autonomy in project operation and decision making.

The contractor team managing the projects had initial difficulties in the type of Chief of Party originally assigned to the PROEXAG project. Because of the need for experience in the private sector, an experienced private sector advisor was hired. However, his inexperience with USAID requirements and with development project management made him inappropriate for the project that had been designed. The contractor replaced him with an extremely effective Chief of Party, and the management of the project proceeded effectively. The EXITOS project also had extremely effective management under the contractor.

The management team identified the export federations and organizations with which it was collaborating; this list appears in Table 3. In addition to these organizations, the team worked directly with many firms and producer associations, concentrating on institutional support from the producer associations as the projects evolved. The types of institutions that had contact with the contractors were:

- Direct economic actors:
  - Producers,
  - Assemblers,
  - Packers,
  - Processors,
  - Exporters, and
  - Receivers;
- Indirect economic actors:
  - Providers of financing,
  - Producers of raw materials,
  - Providers of technology,
  - Suppliers of equipment,
  - Providers of inputs,
  - Suppliers of transport services,
  - Freight forwarders,
  - Customs brokers, and
  - Cold storage providers; and
- Non-economic actors:
  - Government Ministries,
  - Research organizations,
  - Extension organizations,
  - Educational organizations,
  - Regulatory agencies, and
  - International donors.

The management team had to develop a strategy relate to all of these entities. Through work plans and planning sessions, the team was able to establish a hierarchy of activities, beginning with the most

important entities — the direct economic actors. Good working relationships were developed with the direct actors. and workable linkages with the other actors evolved. The team received high marks on developing strong working relationships at all levels.

TABLE 3

EXPORT PROMOTION ORGANIZATIONS IN THE PROJECT AREA

Country	Organization	Members
Guatemala	GEXPRONT	820
Costa Rica	CINDE	76
	CADEXCO	290
	Cámara Agrícola	157*
Nicaragua	APENN	30
El Salvador	FUSADES	260
	DIVAGRO	
Honduras	FOPEX	41
	FHIA	54
Belize	BABCO	17
	BCCI	500
	BEIPU	
Panama	GREXPAN	14

* Affiliated associations have 64,000 members.

TECHNICAL ASSISTANCE

The technical assistance team had tc clarify the PROEXAG project's objectives. Because the various missions and staffs expressed different concerns over the interpretation of the strategy and the identification of the project's beneficiaries, the team sought early clarification on these issues. The key problem was the proportion of project activities allocated to the strengthening of the federations versus the provision of direct assistance to targeted enterprises. The recommendation was 20 percent on the former and 80 percent on the latter.

Another issue facing the team was the selection of commodities that would receive attention. Of the four groups of nontraditional commodities identified — fruits, vegetables, and their derivatives; ornamental crops and their derivatives; specialty crops (including herbs and spices); and propagative materials (such as pineapple nurseries) — the project management chose to concentrate 60 percent of its effort on fruits and vegetables, 20 percent on ornamentals, 10 percent on specialty products, and 10 percent on propagative materials. Total potential volume, employment generation, and crop value all helped reach this determination. Within the fruit and vegetables group, there was the issue of fresh versus processed. Once again, based on potential volume and value and because of the PROEXAG's project team's particular skills, the team devoted most of its time to the fresh produce industry, although several activities, such as freezing and juice operations, addressed processing. In ornamentals, the team concentrated on cut flowers, covering traditionals, tropicals, and exotics. After much analysis of product potential in terms of impact and the team's capacity, the following products were selected for consideration:

Fresh cantaloupes
Fresh cucumbers
Fresh asparagus
Fresh blackberries
Fresh and processed mangoes
Fresh specialty bananas
Fresh and processed specialty vegetables
Processed tropical exotic fruits
Fresh honeydew melons
Fresh watermelons
Fresh raspberries
Fresh blueberries
Fresh and processed pineapples
Fresh and processed plantains
Cut traditional and tropical flowers

Later modifications to the list dropped blueberries, cucumbers, pineapples, and seedless watermelons, and limited the types of flowers.

The next issue was to identify markets. Most of the products were destined for the United States, through Florida; the PROEXAG project helped open alternative entry ports. Canada was considered but was not selected as an important target. European and Japanese markets were analyzed, and some effort was expended to penetrate those markets.

Several questions were asked, to define the technical assistance required:

- What did target markets want?

  Answer: Best product quality, acceptable condition on arrival, consistency of supply, competitive cost, and good service (timely and with no surprises).

- How could Central America compete? What were the comparative advantages and the competitive edge?

  Answer: Given the perishability and seasonality of nontraditional commodities, Central America's agroecology and proximity to markets constituted the best comparative advantage. Competitive edge was garnered from adapted technologies, low labor rates, high labor productivity, competent farm management, high product quality, and capable marketing.

- What were the risks?

  Answer: Vagaries of weather, perishability, the availability of technology or the need to generate technology adaptations, suitable microclimates, small market windows, volatility of prices, little margin for error, and high transport cost compared with production cost.

- What was the profitability potential for nontraditional agricultural export businesses?

  Answer: Extremely profitable, but volatile and risky: some years of break-even, some years of mediocre profit, some years of modest losses, some years of heavy losses; and some years of huge profits.

- How do you achieve sustainability in nontraditional agricultural exports?

  Answer: A grower's, shipper's, or exporter's viability depends on the ability to identify, penetrate, maintain, and expand markets in the face of competition and changing conditions and rules of the game; the capacity to withstand losses at start-up and during bad seasons; and the ability to generate acceptable returns to capital over the long run.

Based on these questions and answers, a set of services and activities was designed to be provided through technical assistance. Four types of technical assistance were provided — the services of the long-term advisors, the services of recurrent short-term advisors on specific crops or topics, specialized services from recognized topic experts, and the services of local consultants on policies, finance, or marketing issues (transport, licensing, inspections, and so forth). The scope of PROEXAG and EXITOS covered 2 major segments of the horticulture field; information and know-how for several product forms; 15 priority crops out of 100 generalized crops; 4 geographic markets; all phases of production, processing, handling, and marketing; 7 source countries; 9 counterpart organizations; and 250 client enterprises. This required the assembly of a versatile core of advisors and crop specialists, access to short-term experts and up-to-date technical information, close contact with key receivers in target markets, matchmaking of advisors and producers, and the provision of technical assistance to produce a deal (the export or sale of a commodity to a buyer in an end-user market).

With these definitions of the project strategy, the contractor was able to carry out the objectives of the projects in a timely, professional, and effective manner. The resulting impact of the projects, in terms of the number of consultancies and repeated requests, and the impact on employment and income produced from the technical assistance activities, vouches for the effectiveness of the contractor's efforts.

SECTION THREE

PROJECT OUTPUTS

TECHNICAL ASSISTANCE

Project outputs in the provision of technical assistance for PROEXAG were 300 person-months of long-term technical assistance and 250 person-months of short-term technical assistance. To date, EXITOS has had a full complement of long-term technical assistance and more than 154 short-term assignments.

TRAINING

The PROEXAG project conducted 100 seminars and workshops and 15 regional conferences, and sent counterparts to UFFVA, PMA, ANUGA, and SIAL international conferences. In addition, training materials, new short courses, and observational tours to the United States, Europe, and Chile have been developed. The EXITOS project conducted 97 training activities through March 1993, with 3,678 participants.

ENTERPRISE PROMOTIONS

From 1986 to 1991, 30 U.S. companies entered into sourcing contracts with 100 Central American firms, cooperatives, or producer associations in deals facilitated by the projects. The estimated value of sales was $48 million.

MAJOR ACCOMPLISHMENTS

Under the PROEXAG and EXITOS phases, the project carried out several activities listed below.

PROEXAG

- Reached target objective of increasing regional sales of nontraditional commodities by $50 million.
- Carried out a promotion to encourage the nascent asparagus industry in Central America.
- Introduced cantaloupe to Costa Rica, which is now the largest exporter in the region. Also worked on pest control, introduced overland transport to Texas, and assisted in shipping controlled-atmosphere packages to Europe.

- Assisted Nicaragua in entering the honeydew market, with 890 hectares in 1991.
- Promoted Sun World's proprietary seedless watermelon sourcing in Honduras.
- Introduced blackberries and raspberries to the region.
- Conducted applied research to test controlled-atmosphere packaging of strawberries for shipment to the United States.
- Conducted induced-flowering trials on mangoes, and developed hot-water dip for mangoes.
- Facilitated better information exchange on permissibility of pesticide use on snow peas.
- Managed crisis in broccoli when producers used inappropriate pesticides donated by the Government of Italy. Assisted in developing frozen consumer packs, and helped test feasibility of fresh shipments to the United States.
- Introduced *edomame* (immature soybean) cultivars from Japan, for production and shipment as a major export crop, in frozen mature form, back to Japan.
- Worked extensively on roses, carnations, chrysanthemums, and colored calla lilies.
- Conducted optimal variety selection on asparagus, blackberries, raspberries, heliconias, flowering ginger, several flowers, and kangaroo paws.
- Conducted extensive training on agrochemical and biological input use, especially pesticides on snow peas, melons, and broccoli.
- Introduced cycle manipulation in mango, asparagus, and brambleberry production.
- Obtained a 27-day transit life-shelf life for strawberries with controlled atmosphere pack (TECTROL); obtained 18 days for cantaloupe (BANAVAC).
- With the Animal and Plant Health Inspection Service (APHIS) of USDA, achieved approval of "delayed list" of crops admissible to the United States.
- Induced Del Monte, Dole, and Chiquita to carry perishable horticulture products on deck on their ships.
- Worked extensively on obtaining access to market information and intelligence on buyers through Red Book and Blue Book registries.
- Facilitated contacts and assisted in establishing deals with principal brokers and buyers interested in sourcing from Central America.[1]
- Through contacts with buyers, played instrumental role in opening up European and Japanese markets.

[1] See list of 28 buyer firms in Project Final Report, p. D-10.

- Identified niche and specialty product markets for organically grown crops, specialty cut flowers (proteas and colored callas), sugarsnap peas, bitter melon, *edomame*, and exotic fruits (rambutan, lychee, mangosteen, and pitahaya).

- Induced Fru-Veg and 4 Pinos to prepack French beans, baby vegetables, and snow peas for Publix Supermarkets.

EXITOS

- Introduced sweet onion production for export to the Southeastern United States through De Bruyn Produce and others. (Panama cost is $11 per 50-pound bag; sale price was $20 per 50-pound bag.)

- Expanded Sun World's purchases of seedless watermelons, Couture Farms' purchases of cantaloupes and melons, and Lindemann Farms' purchases of honeydews and cantaloupes.

- In Guatemala, INEXA developed *edomame* exports to Japan.

- In Nicaragua, initiated diversification of cotton.

- Increased work with APHIS and EPA on regulatory, admissibility, and entry issues.

- Assumed lead role in solutions to the white fly problem.

- Introduced Persian limes and naranjilla to U.S. buyers, and sold rambutans and mangoes to London buyers.

- Introduced new shipping lines to region and sought new ports, such as those in Delaware.

- Began feasibility studies for processing (freezing) plants.

- Held an "onion summit" for last year's growers to discuss lessons learned and plan for the new year.

- Evaluated plant developments in Nicaragua, Guatemala, and Panama on artichoke trials.

- Assisted in development of tissue culture laboratory for producing and exporting cut flower bulbs.

- Introduced trials for commercial plantings of soybean oil substitute, *Vernonia galamensis*, which originated in Kenya, for oil-based paints.

- Worked extensively to develop host country commodity development and trade organizations to address transportation and pesticide regulatory issues.

- Opened a buy-in mechanism for the project.

- Developed a self-sufficiency strategy for several federations.

Other developments include the following:

- A project client in colored calla lilies is now hiring a project consultant on a private basis. and is keeping operations proprietary from the EXITOS staff.
- Hurricanes in Florida and Hawaii forced EXITOS to obtain citrus root stock from Australia.
- The European Union's banana quota for countries outside the Africa, Caribbean, and Pacific (ACP) trade preference regime had an impact on Guatemala, Panama, Costa Rica, and Honduras.
- APHIS published a list of 22 crops now admissible from Central America.
- Agritrade successfully expanded to regional format.
- Southern Contract Industries is considering production of pepper mash and brined pickles.

SUMMARY

The accomplishments listed above are highlights of the many activities carried out by the two projects. The impact on the export business for horticulture is almost immeasurable. The numbers of people trained, institutions developed, regulations modified, and policy reforms initiated far surpass any typical USAID project assessed in the past. The PROEXAG and EXITOS projects have operated in an extremely efficient manner in a vibrant and dynamic sector of the Central American economies. Many results achieved in the development of nontraditional exports from the region would not have occurred without the promotional activities of the projects. The projects fell into being at the right place at the right time, and took advantage of opportunities, with a well-organized and professional technical assistance team.

SECTION FOUR

ECONOMIC AND SOCIAL IMPACTS

IMPACTS ON PEOPLE

Direct Employment

Nontraditional agricultural products grown or produced for export are marketed or processed by agribusiness clients of the PROEXAG and EXITOS projects. These client firms — private companies, foreign subsidiaries, producer associations, and formal cooperatives — grow their own products, contract to outgrowers or suppliers, or simply purchase the raw materials from farmers. Most of the firms obtain their supply with a mixture of these approaches. Some crops lend themselves to one approach or another; for other crops, all three approaches are appropriate. Those firms that produce their own crops hire substantial numbers of both short-term (seasonal, up to six months) and long-term workers. Women constitute 60 percent of these employees. About four short-term workers are hired for each long-term worker.

Substantial training is required to prepare the delicate products for export because of the market demand for quality, so agribusinesses prefer to enter into long-term relationships with workers or growers. For in-house employees, benefits tend to rise above the local remuneration rates because of the need to minimize turnover in the work force. Salaries run about 30 percent higher, and benefits include health care, vacations, and often schooling. Because of the rapid growth of the *maquila* industry in recent years, competition for low-wage labor has increased, and agribusiness firms have been forced into providing greater benefits for workers than in the past.

Wage rates in the region vary with each economy. Guatemala's and Nicaragua's wage rates are perhaps the lowest; Costa Rica's are the highest. Agricultural workers earn $2 to $3 per day in Guatemala and up to $10 per day in Costa Rica. In Guatemala, skilled company employees (in specialty crops and processing facilities) can earn up to $5 a day; skilled employees can earn $15 a day in Costa Rica.

Although some firms grow their own crops because of the need to closely supervise quality and the nature of inputs (that is, pesticides or organic inputs), most firms engage in contract farming by identifying producer associations, individual farmers, or cooperatives with whom they can contract certain volumes of products at specific times and under predetermined growing conditions or technology applications. For many of the contracted crops, per hectare employment rates (that is, the number of workdays per crop per season) reach well over 300 workdays (*jornales*).

Because the traditional crops (maize and beans) use only about 50 workdays per season and can be grown only one season a year in Central America, the incremental labor generated by the horticultural and ornamental export crops exceeds one full-time employment equivalent per year per hectare. When double cropping is used, the annual increment may stretch to more than two full-time equivalents. For this reason, employment estimates are derived for total volumes of crops exported and not on acreage dedicated to these crops.

Those firms that contract growers usually provide some inputs and technical assistance on the way they want the crop grown. Contracted prices are also typical in the region.

There are many firms that supplement their supplies by market day purchases — that is, by going to central markets or rural assembly markets and selecting and buying available products to make up for shortfalls of their contracted growers or to fulfill additional unforeseen orders. Contracted growers also use these markets to dump production in excess of the contracts or produce that fails to meet the contract's standards.

Under these different procurement schemes, agribusiness firms directly or indirectly employ large numbers of growers and processors. For every ton of produce exported, it is estimated that one-fourth of a work-year equivalent is required. This means that, on the average across all crops, four tons per hectare are exported. It is also assumed that average export prices are 50 cents per kilogram. Hence, the total free on board (FOB) value of export sales can be divided by 50 cents to derive export volume and, by dividing by four tons per hectare, the number of hectares required for this volume can be derived. Using total export figures for the crops addressed by the projects, and extrapolating from 1991 figures to 1993 estimates, total export value to the United States alone reached $215 million. Exports in the region or to other countries in Europe and Japan raised this figure by 50 percent.

The results of these calculations for job creation appear in Table 4. To calculate income benefits to these employment equivalents, the wage rates presented above were used to estimate employee incomes. For every 10 full-time farm labor equivalents, a full-time equivalent in processing was calculated, at the higher wage rates for processing jobs.

TABLE 4

IMPACT ON EMPLOYMENT AND INCOME

Value of Exports	Jobs Created	Incomes
To the United States, $215,000,000	107,500	$161,000,000
Elsewhere (equivalent to 50 percent of U.S. exports), $322,500,000	53,750	$40,313,000
Total Number of Jobs	161,250	$201,313,000
Backward and forward linkages (at 15% of total)	24,150	$18,113,000
Multiplier effect (at 25% of total)	40,312	$30,234,000
Total, all effects	225,712	$249,660,000

Backward and Forward Linkages

The agribusiness sector is involved in growing crops for market. To produce a hectare of any crop requires seeds, organic or chemical fertilization, and, usually, an array of other inputs — insecticides, fungicides, lime, ploughing, spraying, and so forth. The agricultural export industry in Central America has stimulated the development of a sophisticated supply system for these inputs. Labor is needed to produce these inputs and to distribute them to growers. Similarly, when the products move to market and are sold, transportation and packaging material are required; when they are processed, they need more packing material, preservatives, water, and electricity, as well as the equipment needed for the processing activities — precooling, refrigerated storage, sorting and selecting, washing and dipping, pasteurizing, pickling, preserving, and so forth. Moreover, freight forwarders are needed for export. All of these services generate additional employment. For this analysis, an additional 15 percent of the production employment figure is used as the employment multiplier for backward and forward linkages.

Multiplier Effect

The multiplier effect, to extrapolate the number of jobs generated in related industries and consumer goods industries to provide consumption articles for the direct employment beneficiaries, has been estimated at 1.8 percent, 2.4 percent, and 4.7 percent in three different studies. It would be presumptuous to claim employment beneficiaries at this level as project impact. Nevertheless, multiplier effect employment should be added at some level to the total employment figure. A conservative estimate of 25 percent of the total direct employment figure would raise the total number of jobs created to 341,000.

In addition to the creation of jobs, the services people receive, because of their own additional efforts on owned or rented land or because of wage employment, have increased the level of income per workday compared with wages before the surge in exports. This improvement is not only in increased salaries but also in health services, transportation, and training in agricultural practices.

IMPACTS ON THE SECTOR

Perhaps the largest sectoral impact that has occurred in the agricultural export industry was in the use of sophisticated agricultural technologies and the use of appropriate pesticides and other chemicals. Because the climates are tropical, the incidence of pests, weeds, and fungus is much greater than in temperate climates. Also, because crops can be grown one after another, the build-up of these elements is potentially greater than in other climates or situations. As a result, the producers have been forced into a very high level of agrochemical management to meet the high standards of quality control imposed by the importing countries. Local producers have used the export crop practices in fertilization and pest management on their local and traditional crops as well, thereby increasing yields, to free up land for the introduction of new crops and still maintain consumption levels.

Marketing efficiency has increased significantly because of the projects. First, the projects were somewhat successful in improving the shipping services in the region, through the introduction of competitive shippers and the exertion of pressure on the current shipping system to become more competitive. The pressure to become competitive was not successful; however, there now are several additional firms shipping from the region.

One last area where sectoral level impacts have been felt is in the production of the export farmers' other crops. Technologies learned, especially in fertilizers and pesticides, in the production of export crops are used extensively in the production of the traditional crops for personal consumption.

IMPACTS ON FIRMS

The PROEXAG and EXITOS projects have assisted 10,800 farms and several hundred businesses. An exact number of businesses is not available, and rough estimates of agribusiness profits also are not available. Many businesses seem to flourish, and many others are initiated and then fail. What is obvious is that many products have potential market niches which can be accessed by astute entrepreneurs. To the extent that market channel captains evolve to manage the process and the market demand remains strong — as it has for these crops over the last decade — then the returns to the firms' efforts will remain adequate and acceptable.

Many small and medium-sized businesses have proliferated in the export marketing scene. Many have made handsome profits by being the first on the scene in a new product or seasonal market, but many others have not done well. Nevertheless, sales have risen steadily, and the prospects for further expansion appear promising if the region can develop adequate mechanisms for pest and disease control.

The semi-annual reports of the projects list the companies that have received assistance, and sales figures from the region have grown steadily over the last decade, indicating that these firms must be earning a profit from their own efforts to minimize costs and lock in markets.

INDUCED POLICY CHANGES

The PROEXAG and EXITOS projects have played a critical role in dealing with EPA, APHIS, and others to establish a rational approach to problems with pesticides and other agrochemical residues. Over the last five years, requirements for fruits and vegetables to enter the United States have increased dramatically — especially restrictions on products that are allowable and crops from Central America that can enter the United States. A list of 22 crops approved for imports has recently been generated, and new agrochemicals have been approved for different commodities. The projects have maintained pressure on USDA and other U.S. agencies to develop appropriate programs to teach farmers and producers how to meet the new standards.

The projects have been extremely successful in creating an improved environment for investments. Project records identify the deals that have transpired and the investments that have been made. Although foreign firms do not always invest in the operations of their trading partners, substantial investments in these crops have nevertheless occurred. However, new interpretations of Section 599 of the U.S. Foreign Assistance Act restrict a project from attempting to induce new investments.

Other regulatory changes have occurred with respect to the transportation issue, which remains one of the primary constraints to rapid expansion. The "free skies" agreement has been promoted by the projects. This has led to the initiation of several additional air transport services from the region. Also, the projects have assisted in establishing cold storage and in promoting maritime services from Pacific ports.

SOCIAL ISSUES

This is one of the most difficult questions to answer in a patriarchal system. The role of women has been studied in the region, and it appears that women are required to do extra work (or do so willingly) when they are forced into the field. Women still have responsibilities for child rearing and food preparation. The extent to which they benefit monetarily from their efforts in the field or in the factories is difficult to ascertain with clarity. They may have to pass the earnings on to their spouses. No information is available on shifts in land rights, inheritance, and the distribution of export earnings within the household. However, women are recorded as receiving a large share of the benefits accruing to the family as a result of their increased farm-level efforts. No indication of differential wage rates have been detected. However, like profits, discriminatory wages between men and women are hard to detect without the observer being physically present in the operation.

From the information available, it appears that women make up 60 percent of the work force, both in the on-farm field work and in the packing and processing sheds. The percentage in processing could even be higher. As wage earners, they take home their own paychecks. How income is distributed at home is not known. However, when the labor on export crops is only family labor, it is known that the percentage of women's labor is high, but the proceeds may not reach the workers because the head of the household will make the sales. Nevertheless, given the tremendous increase in labor generated by the projects, and recognizing that 60 percent of this labor is by women, the distribution of benefits by gender is significant.

One phenomenon that could cause a setback for achievements over the last decade is the degree to which pesticide residue restrictions are enforced in the U.S. entry ports. As tolerance levels decline or when chemicals appropriate to some products are not registered for others, producers are going to shy away from bulk purchasers or small farm purchases in order to closely control chemical pesticide use. This will adversely affect current growers as the large firms begin to their own crops or contract only with larger growers. The result could be a significant reduction in employment generation.

Net benefits to the industry have been significant. If total sectoral exports reach $315 million, and local content runs at roughly 70 percent, then incomes generated will reach $158 million from farm labor alone.

SECTION FIVE

PERFORMANCE

OVERVIEW

The PROEXAG project was designed during a transition period in the development of marketing assistance strategies. The earlier period concentrated on the creation of marketing infrastructure, such as the construction of assembly and terminal market structures. As the 1980s progressed, more emphasis was placed on institutional development and on the shifting of government responsibilities to the private sector. The Central American countries, as well as several South American countries, entered this period with the formation of export development and promotion federations or new government offices, fashioned to a certain extent after the commodity trade associations of the United States. However, it was recognized that institutions do not induce the formation of private enterprises but instead function to serve the needs of the enterprises. As the expansion of nontraditional exports evolved, the federations were able to respond to the exporters' needs in terms of policy reform and market information. But there were other needs that were not satisfied by these institutions, which had to do with the creation of a deal — the consummation of a sale between a host country producer or processor and a buyer in the end markets. As the PROEXAG and EXITOS projects progressed, it was determined that the principal focuses of the projects' activities comprised a range of functions surrounding the creation of a deal. The intent became to support the expansion of a particular sector of the export industry, commodity by commodity, so that the firms created would continuously demand the services of the export promotion institutions. It appears that the approach was right on target.

Notwithstanding the validity of the strategy that evolved, the resulting project format may not be in concert with the capacity of a U.S. government agency to support. The entities selected for assistance are private firms. Although credit and financing are not offered (and perhaps should be), judgments must be made by U.S. and host country government officials on which firms receive assistance. This may cause conflicts of interest. Great care must be exerted to design a system that is fair and just in the identification and selection of clients that receive assistance. Also, USAID may not continue to offer technical assistance or other services directly to the private sector, but may shift its emphasis back to intermediary institutions and nonprofit entities in the near future.

In addition to the factors outlined above, several regional policies greatly affected project performance during this period. The Caribbean Basin Initiative opened up imports from the region by reducing tariffs, especially on agricultural goods. The Generalized System of Preferences (GSP) also assisted in making imports from Central America attractive to the United States. As a result, the trade fairs that were developed were quite successful in attracting potential buyers.

However, there were several unstable political situations, including the incidence of violence running high in El Salvador and Guatemala, the uncertain situation in Nicaragua, and developments in Panama. All of these situations threatened the potential for joint venture investments and limited the team to the promotion of deals — sales — rather than investments by U.S. firms.

Finally, the growth of the *maquilas* was such that it drew off agricultural labor for factory jobs. Part-time farm and processing labor was less plentiful and required an increase in the basic remuneration. This was good for the agricultural day-laborers but was not so good for the hiring firms.

DESIGN FACTORS

The PROEXAG project was designed with flexibility in mind. Several concept papers were developed prior to the preparation of the Project Identification Document and the Project Paper. Nevertheless, the determination that the exclusive support of export promotion institutions would provide the necessary leadership and stimulate the rapid growth, expansion, and diversification of the nontraditional agricultural export sector was optimistic. The institutions themselves became bureaucracies that were not always the most propitious format through which to stimulate export activities. Fortunately, USAID project management was flexible enough to permit the implementors to shift their emphasis from the institutions to a diversified program of assistance mechanisms aimed directly at the private firms and market participants in order to establish and consummate specific deals — that is, exports and sales. However, a large portion of this assistance, as evidenced by the list of major accomplishments, involved the introduction of new production technologies, varieties, or crops, by conducting production, adaptation, and multiplication trials in the field and by carrying out handling and processing tests as well.

The initial strategy was vague in terms of specific commodities and activities that were to be pursued in the arena of nontraditional agricultural products with potential for export. The project team spent considerable time defining crops or products to concentrate on, markets to penetrate, and activities to pursue. The resulting guidance modified the intervention strategies and activities identified in the Project Paper in order to give the strategies and activities focus and provide a clear model that could be implemented. This led to significant efficiency and effectiveness in project implementation. The follow-on project, EXITOS, maintained this project design and structure; continuity of strategy and purpose was achieved when the contractor for the PROEXAG project won the contract for the EXITOS project.

IMPLEMENTATION

As mentioned above, the project implementation team refined the PROEXAG project's scope of work before initiating activities. This greatly enhanced the effectiveness of the project's implementation. By narrowing the range of activities to those with significant value-added margins, the team was able to concentrate on items with high returns. Moreover, the team introduced new commodities in field productivity trials, postharvest handling tests, and market penetration activities. All of this supported the efforts to introduce new products for production and export.

To produce high-quality fruit and vegetables for the export market, high-quality products are imperative. To cope with this requirement, the two projects directed a significant level of effort on technology development at the farm level, with adaptive farm trials, using U.S. experts in each field. The projects spent a great deal of effort on technology transfer by bringing in highly regarded specialists on the commodities chosen. This work was in addition to the marketing activities carried out.

The approach to developing solid agribusinesses addressed all the issues along a commodity marketing channel. Identifying appropriate production climates, developing adaptive technology applications, addressing postharvest handling issues, and checking out marketing brokers to verify their reliability and respect in the market were all part of the agribusiness activities undertaken by the projects.

Market information has been an integral part of the two projects' activities. Information on prices from several market sources has regularly been made available to project participants. However, market information has not been sufficient, and the projects have demonstrated that there is a need for a channel

captain to craft the information provided on markets and technologies into a viable business opportunity and implementation schedule, complete with start-up financing. Jung Rhee Whee of the World Bank has labeled this person the "catalyst"; the Africa Private Enterprise Fund calls this person the "industry leader." This person is needed to ensure safe passage of the product from production to end markets. Recent field visits by this author corroborate the need for this kind of change agent. The team visited several firms that use the services of such an individual or operate with one in place.

The PROEXAG project did not envision working with postharvest processing plants or firms. The EXITOS project initially included processing firms in its portfolio, but this emphasis was rescinded by the time the EXITOS project came into operation. However, because project activities are so closely interwoven with the processing activities, it was felt that technical assistance and market information — price information and trade fair contacts — would be made available to clients interested in the products. As a result, several food processing experts have been made available to project clients over the last couple of years.

PHYSICAL ENVIRONMENT AND ENABLING ENVIRONMENT

Soil conservation was a major issue when the PROEXAG project began, in terms of the impact of clearing land on steep slopes where erosion would be likely. However, a recent inspection of the slopes where the products can be grown shows that soil erosion is not a major issue or factor affecting performance. The way the crops are grown, with miniterraces, eliminates the threat of erosion significant enough to cause alarm.

Pesticides and their residues have caused great havoc in horticulture production in the region. Since the United States began lowering residue tolerances allowed in imports and prohibiting traces of pesticides not pre-registered for each product, several shipments have been rejected and bans have been invoked. At the moment, there is a voluntarily applied ban against snow pea exports from Guatemala to the United States.

With respect to the enabling environment, the projects worked closely with other bilateral projects, including the pesticide component of the Regional and Natural Resources Management Project, to deal with the pesticide problem. The PROEXAG project was instrumental in developing trials with hot-water dips on mangoes. Also, work was carried out on controlled-atmosphere wraps. Transportation issues were addressed in the political arena as well as through promotional activities, in order to induce more transport capacity to serve the area.

The host governments were fully committed to supporting the efforts to expand nontraditional agricultural exports. Much of their support was directed through their respective export promotion institutions. In addition, as problems arose the respective governments generally responded in a timely fashion, in spite of the fact that the traditional upper classes of these countries were enmeshed in traditional agricultural production and export and stood to lose political power if nontraditional agricultural exports overtook traditional agricultural exports as the leading export activity. This shift in exports did take place in at least two countries.

SECTION SIX

COST-EFFECTIVENESS

ESTIMATION OF PROJECT BENEFITS AND COSTS

Calculations of project benefits are made in two ways. One way is to identify the total labor generated by the agricultural exports induced by project activities. The other way is to derive corresponding income flows. If these values are taken over the duration of the projects and extrapolated over 20 years, a typical cost-benefit analysis could be conducted. However, because the benefits are estimated across a sector rather than for individual firms or for geographic areas, it would not be appropriate to estimate cost-benefit ratios.

The labor figures were derived in Section Four. For U.S. exports, the employment figure is 161,250 jobs. After taking into account non-U.S. exports, backward and forward linkages, and the multiplier effect, employment estimates reach 225,712. Total estimated income reached $169 million. These numbers will be compared with project expenditures to derive the costs USAID expended to obtain a full-time employee equivalent — in other words, a job. Total project expenditures were $8 million for PROEXAG and $8 million for EXITOS, although not all of the EXITOS funds have been expended to date.

COST-EFFECTIVENESS ANALYSIS

Employment

Total employment is 161,250, for U.S. exports, and cost per job created is $102. Adding the three multipliers reduces cost per job created to $73.

Earned Income

The total value of earned income is $121 million for U.S. exports — $169 million when all multipliers are used. Costs per dollar of earned income is derived at 14 cents and 10 cents, respectively — or, stated in reverse, each dollar expended by USAID generates $7.33 and $10.24 in local income, respectively.

Technical Assistance

There were about 300 short-term technical assistance efforts for a line-item budget of $4 million during the two projects, yielding each effort at $13,000. This calculation does not include activities of the long-term technical assistance staff.

TABLE 5

COST-EFFECTIVENESS ANALYSIS

	U.S. Exports	All Multipliers
Cost to USAID per job	$102	$72
Income to USAID per dollar expended	$7	$10
Cost per technical assistance assignment	$13,000	

RETURNS TO THE U.S. ECONOMY

Shippers and other marketing agents based in the United States generate incomes with every export sale made to U.S. buyers. A recent study in Guatemala showed that almost 30 percent of production costs are spent on U.S.-sourced products, such as packing materials, equipment, or inputs (seeds, fertilizers, pesticides, and the like). This means that 30 percent of the total value of exports destined for the United States, estimated at $251 million in 1993, is returned to the United States. In addition, the product is sold at retail for at least double the FOB price, so another $215 million is earned by U.S. wholesalers, transporters, processors, packers, storage agents, distributors, and retail services. When comparing these figures to USAID's expenditures, it can be seen that returns to the United States are $17 for each dollar expended. When sales to regional and to European and Japanese markets are included, the figure increases to $19. Returns to the host country are $9 for exports to the United States, but are $14 when all production is considered, including that going to European, Japanese, and regional markets. The projects have estimated that 4,836 jobs have been created in the United States to handle the incremental imports from Central America.

In addition to the value added that is generated in the United States, the exports have produced another benefit to the United States in terms of the goods purchased with the foreign exchange generated in the United States. For every dollar of foreign exchange earned from the export of nontraditional agricultural products, it is suggested that at least $1.00, and perhaps even $1.20, in U.S. imports are purchased. Since the demand for U.S. imports is from the economy as a whole, the only way to obtain the foreign currency resources to pay for the imports is through these exports. Dollars, instead of being brought back into the country, are used to purchase consumer goods and other production inputs.

SECTION SEVEN

SUSTAINABILITY

EXPORT FEDERATIONS

The projects have placed a great deal of emphasis on developing sustainability in the export federations that receive project assistance. It is perceived that the federations will continue to provide guidance and industry developments and perform in the best interests of their members. This will require lobbying for policy reforms from time to time. However, the intense one-on-one support to farmers, processors, and exporters will be curtailed somewhat, depending on the degree to which independent consulting agreements can be negotiated or donor projects can be contracted. There is a desire for each federation to develop an endowment fund so that a wider range of activities can be engaged after the EXITOS project is terminated. Resources to build the endowment will come from member fees and from income-earning activities such as trade fairs. Member fees also will be used to fund a reduced core staff. Donor projects and contracts will fund specific technical activities. It is envisaged that each federation will become self-sufficient at the end of the EXITOS project.

The export federations need to develop the capacity to anticipate, identify, and respond to members' needs in the export process. This will be done by continuously monitoring the macroeconomic, regulatory, and business environment to identify threats or opportunities and, wherever possible, by undertaking collective action to improve the export environment. Programs, projects, and services that enhance the economic viability, sales volumes, and profitability of enterprises engaged in exporting will need to be financed by the federations, independently from USAID. Sources of finance will be membership dues and fees, service income, revenue from collateral businesses, and passive income from financial investments or donor grants. Not all of the federations are expected to thrive, but their structures are now independent of USAID, and the federations will be expected to provide services after the EXITOS project terminates. Each federation has conducted a self-sufficiency analysis and feels confident that it will be able to manage after downsizing occurs with the termination of USAID funding. This evaluation cannot determine whether the withdrawal of support will lead to some federations ceasing to function. Presumably, some will fail.

EXPORT ENTERPRISES

Private firms that engage in the production and export of nontraditional crops produce under harsh climatic conditions and face extremely risky markets. As a result, not all firms are able to continue in the business. Many fail each year, but several others rise up to join the community of exporters. The number of firms involved in exporting has grown rapidly over the last few years as exports have expanded rapidly. In Guatemala, 27 firms that exported nontraditional agricultural products were associated with the Gremial export federation when the PROEXAG project started. Today there are 187 such firms, and the number of firms is growing rapidly. All indications are that the viability of individual firms is strong and, as they develop new markets and increase direct marketing links, nontraditional agricultural exports should continue to expand.

To remain viable in the industry, enterprises must continuously adjust production schedules to the market. Their competition is doing the same thing, and each firm must try to stay ahead of the others. Market niches are hard to identify, but when one enterprise fills a niche it must fight to keep a firm grip. The environment is extremely competitive; only the most fit will survive. However, the barriers to entry are not excessive, and more firms will attempt to enter the field.

One point that must be considered, however, is the impact of increasing the restrictions on pesticide use and residues. If the restrictions become impossible for small farmers to understand and master, large firms will stop buying from them and will revert to their own production systems. This will improve and control quality but will reduce the number of growers and the employment impact, especially among the small-scale indigenous growers and contractors. The sustainability of the firms is not as much of an issue as the sustainability of the broad-based impact.

INTERMEDIARIES

The brokers that handle nontraditional crops from Central America have been known to act unscrupulously. This has damaged their image, although this has been the problem of the marketing agents from the beginning of the project. Within each country, the most notorious businesses have been the "coyotes," who buy cheap, sell high, and never pass the benefits on to the growers or consumers. The brokers always earn their commissions; whether a product earns its production cost, a shipment has poor quality because of a problem in shipping, or the value of the final product plummets, the middlemen take their cut — and this payment is usually up front. Often, the producer or grower ships on consignment and does not get paid until the product reaches port and is sold. The producers often lose in the process. As a result, most producer associations, enterprises, or cooperatives try to market directly to a distribution entity or through brokers with excellent ratings. This movement may drive some brokers out of business. Vertical integration is the most desired form of business structure in the produce market; this tendency is developing in the Central American situation.

CROP AND PRODUCER ASSOCIATIONS

The projects have promoted the development of crop and producer associations in several countries. The essence of the training imparted to the associations was that the associations should be responsive to the needs of affiliated growers and shippers by engaging in collective action aimed at resolving technical problems, improving market access, enhancing access to external financing, improving the regulatory environment, and increasing overall profitability. To the extent that the associations can execute these activities for their members, they will achieve sustainability. Those associations related to crops or products that maintain strong demand will reach the sustainability plateau; those that face more difficult production environments and more fragile markets will most likely fail to achieve sustainability as organizations. The associations were formed to serve the members in activities the members, as individuals, were incapable of handling. When the number of members declines and individual margins wear thin, the demand for associated activities will also decline, and the associations will disintegrate.

USAID AND THE CENTRAL AMERICAN MISSIONS

USAID's Latin American Bureau and Central American missions are moving toward programs that deal with the environment rather than those that pursue private sector support and nontraditional exports. There has been little evidence that the missions see the benefits to the United States from the expansion of these exports, and, in general, support for these programs is dwindling. Moreover, the increased emphasis on environmental issues, especially with pesticides, is undermining the efforts to promote nontraditional agricultural exports. In addition, the recent interpretation of Section 599 of the U.S. Foreign Assistance Act prohibits the missions from supporting programs that promote investments. All of these initiatives may threaten the sustainability of the agribusiness programs that have been developed with the support of PROEXAG and EXITOS.

Perhaps the most devastating blow was the threat not to obligate money for next year's program. If this had not been done, the EXITOS project would have terminated by January 1994. The project continued through June 1994. No new regional effort is envisioned.

As the support for PROEXAG and EXITOS diminishes in USAID's Latin America Bureau, the Asia Bureau is beginning a new agribusiness project. The Asian countries where USAID provides assistance will vie for the same markets PROEXAG was serving. Without the EXITOS project, the Central and Latin American countries will lose their advocate for the development of new products to satisfy the niche markets identified. It is unlikely that the enterprises in these countries will be as creative and innovative as the PROEXAG and EXITOS projects have been, in terms of new product development for new market opportunities. Terminating the EXITOS project will eliminate the potential to continue the success of one of USAID's more outstanding project performances.

SECTION EIGHT

LESSONS LEARNED

OVERVIEW

The PROEXAG project determined that the deal — the consummation of an export sale — was the most important activity addressed. This diverged from the original concept of institutional strengthening through the export federations or commodity associations. To effectively stimulate deal making, the project participants realized that a significant effort was required to identify and encourage foreign buyers to look closely at Central American opportunities — that is, to look at firms and products. To generate high-quality products, the project had to introduce quality consciousness and, sometimes, new products. The introduction of new products required thorough knowledge of production technology, postharvest handling, product packaging, timing, and technology transfer. The entire market channel needed attention. As a result, the PROEXAG and EXITOS projects developed several technical assistance mechanisms to properly introduce new products with niche markets. This broad range of technical assistance was responsible for initiating several new agricultural exports and stimulating the formation of several crop-specific industries. The projects concluded that the volume of exports in a commodity created the demand for export associations, the demand for associations provided support for the associations' operations, and the level of exports determined the viability of an association for a commodity.

TECHNICAL ASSISTANCE

The project staffs became very knowledgeable about the opportunities in potentially viable niche markets in Central America. Once a system was developed, the identification of new products and the location of new market opportunities became quite straightforward. An effective and easily followed process emerged for finding new products, their markets, the specifics of their new technologies, and interested growers. This kind of activity was unique to USAID prior to the PROEXAG and EXITOS projects.

CHANNEL CAPTAINS

Although the process outlined above was successful in transmitting information on what to do, the new efforts were rarely sustainable without the presence of a channel captain. Successful export developments without the presence of channel captains were rarely encountered. A channel captain could be a local entrepreneur with U.S. experience and contacts; a parent firm, located in foreign markets, with direct links to the parent firm; or a U.S. entrepreneur playing an intermediary role. Nevertheless, for an enterprise to succeed and become viable in the marketing channel, it was virtually imperative that one of these actors be present in the operations.

FINANCING

The absence of adequate financing hindered the development of strong producer associations, because the associations depend on buyer financing for productive inputs, especially seeds. In addition, the high interest rates on short-term capital negatively affected the expansion of export enterprises. Although overvalued exchange rates did not constrain agricultural exports that (compared with imported inputs) were high in labor content, interest rates over 30 percent stifled the ability of the young firms to provide inputs and cash for commodity purchases. As everything was on consignment, the risks were always transferred back to the weakest elements, the independent small scale farmers, who had to endure late payments. Low interest-rate financing is desperately needed to stimulate the production and export of these nontraditional products if current expansion rates are to be maintained.

IMPACT

There is no question that this kind of project can have a significant effect on the development of agricultural exports from the region. The regional basis of the two projects was an advantage in terms of economy of scale to identify markets for new or improved products that could be grown throughout the region. The entire region took up the challenge of nontraditional agricultural exports, and the projects assisted in providing technical assistance from production to marketing and in acting as an advocate for policy reforms and incentives to promote further expansion of nontraditional exports.

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